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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Merrill et al
Application No.:	09/329,502
Filed:	June 10, 1999
Examiner:	T. Dang
Group No.:	1764
For:	AROMATIC CONVERSION PROCESS EMPLOYING LOW SURFACE AREA ZEOLITE Y

Via First Class Mail

Assistant Commissioner
for Patents
Washington, D.C. 20231

CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that the papers enclosed herein are being deposited with the United States Postal Service "First Class Mail" in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Clare Jackson — April 23 2001
Signature — Date of Signature

Sir:

REPLY BRIEF

Appellants respectfully request consideration of the following replies to certain new points of argument raised in the Examiner's Answer: This Reply Brief is submitted in triplicate.

Referring initially to the statement made under Item No. 7 of the Examiner's Answer, Appellants would respectfully submit that the Primary Brief does, in fact, present arguments separately with respect to certain of Appellants' claims. Considering first Appellants' claims 2 and 20 which require a surface area of 400 m^2/g or less and claim 3 which requires a surface area within the range of 350-400 m^2/g, attention is respectfully invited to the first full paragraph found at page

10 of the Primary Brief and in the first full paragraph found at the top of page 13 of the Brief. There, Appellants point out that it would be literally impossible to hydrate the starting material of West and end up with an area of 400 m^2/g or less. To apply the Examiner's own reading of West, which implies selecting a starting material surface area of 350 m^2/g (from the West range of 350-700 and preferred range of 500-700 m^2g) and an amount of water of 3.5 wt.% (from the West range of above 3.5 wt.% and the preferred range of 5-15 or 5-10 wt.%), the result would still be a surface area in excess of 400 m^2/g. Thus, assuming a starting material of 25 milliliters pore volume and following the Examiner's position such that 3.5 wt.% of water is added to zeolite Y having a surface area of 350 m^2/g, the result would still be a surface area above 400 m^2/g, as determined following the relationship corresponding to that set forth on page 9 of the Primary Brief. Appellants would emphasize that the Examiner's assertions are not believed to represent a fair construction of West Contrary to the Examiner's assertion, the 3.5% water is found in the statement that the water content must be greater than 3.5 wt.%. What is actually disclosed is a range of 4-25%, but again, if one were to avoid the "greater than" language in West and simply focus on 3.5 wt.%, the result is still a surface area of the hydrated zeolite actually used in the West procedure in excess of 400 m^2/g.

It is noted that Appellants' Primary Brief further presents additional arguments with respect to independent claims 10 and 18 (and the claims dependent thereon), and thus it is clear that these claims do not stand or fall together with claim 1 and the claims dependent thereon. Attention in this regard is invited to the arguments made in the paragraph bridging pages 11 and 12 of the Primary Brief. Appellants here will not repeat these arguments other than to simply note that the West procedure requires a liquid phase in both the alkylation and transalkylation reactor.

In focusing in this Reply Brief on the subject of surface area and the fact that when the West disclosure is considered in its entirety, the surface area (after hydration) would be greater than the

surface area of Appellants' zeolite Y, Appellants do not wish to do so at the expense of the other characteristic of the zeolite Y involved in this invention, that is, the silica/alumina ratio of 2-5. Here, Appellants' invention requires a silica/alumina ratio for the zeolite Y used in the transalkylation reaction of 2-5. West discloses a much broader silica to alumina ratio of 4.5 to 35 (see the sentence bridging columns 5 and 6). While West in the second full paragraph of column 6 discloses a silica/alumina ratio of between 4.5 and 9 and between 4.5 and 6, this is for a modified Y zeolite having a surface area between 500 and 700 m^2/g. (This is the surface area before hydration, so the actual surface area would be even greater.) Thus, in order to arrive at the high porosity zeolite Y used in Appellants' invention, one must read West selectively to employ the lower limit of the surface area, a value for water below the lower limit of the water added to the zeolite Y, and the lower limit of the broad silica/alumina ratio range in West., even though this lower limit corresponds to a much higher surface area, 500-700 m^2/g before hydration.

In fact, one can arrive at the zeolite Y used in Appellants' invention as defined in claim 1 after a reading of West only by selecting the extreme limits in West of surface area, the amount of water used in hydration, and the silica/alumina ratio, and even then doing so in a manner which is directly contrary to the teachings of the reference. The approach taken in the Examiner's Answer, in attempting to support the rejections under 35 U.S.C. § 103, is to focus only on certain portions of West to the exclusion of a consideration of the reference as a whole to determine what it fairly suggests to one of ordinary skill in the art. Thus, the rejection dismisses those teachings of West, leading one of ordinary skill in the art away from Appellants' invention by focusing only on selected portions of the West disclosure. However, this is directly contrary to the well-established principal that a reference disclosure must be considered in its entirety when evaluating the issue of obviousness. As stated by the Federal Circuit in *Bausch & Lomb v.*

Barnes-Hind/Hydrocurve, 230 USPQ 416, 419 (Fed. Cir. 1986) in quoting *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965):

> It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.

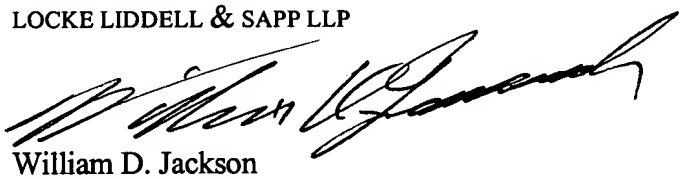
It is clear that when West is considered in its entirety for what it fairly implies as to surface area of the starting material, silica/alumina ratio, and the amount of water added to the starting material, the West disclosure in its entirety actually leads one of ordinary skill in the art away from Appellants' invention.

For the reasons advanced above and in Appellant's Primary Brief, it is respectfully requested that the rejections of the claims be reversed.

The Commissioner is hereby authorized to charge to Deposit Account No. 12-1781 any fee that may be due in connection with this Reply Brief.

Respectfully submitted,

LOCKE LIDDELL & SAPP LLP



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